

REMARKS

Claims 1-5, 7-9, and 11 are all the claims pending in the application. It is respectfully submitted that the pending claims define patentable subject matter.

Claim Objections

Claims 3 and 5 are objected to. Specifically, the Examiner alleges that claim 1 recites upper and lower stage surfaces while claims 3 and 5 recite a stepped portion, and therefore it is unclear as to where the stepped portion(s) would be located on the inner periphery of the rubber crawler, or how they would relate to the upper and lower stage surfaces of claim 1 (Office Action, page 2).

Applicants have herein amended claims 3 and 5 as suggested by the Examiner to recite that the stepped portion(s) are formed between the upper and lower stage surfaces.

Claim Rejections - 35 USC § 112

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite because it is not clear if the upper stage surfaces and the lower stage surfaces are the same as those set forth in claim 1, or if these are additional upper and lower stage surfaces.

Applicants have herein amended claim 4 to overcome this rejection. Therefore, reconsideration and allowance of the present rejection are respectfully requested.

Claim Rejections - 35 USC § 103

Claims 1-6, 8, and 9 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Komatsu (JP 2002-127955; hereinafter “Komatsu ‘955”) in view of JP 03-19785 (hereinafter “JP ‘785”).

Claim 1 recites, inter alia “wherein a contact area of the endless inner periphery rolling contact surface with the outer surface of the tracker roller in a fixed widthwise region on respective left and right sides of the tracker roller is in the range of 30% to 70% with respect to the area of the outer surface of the tracker roller” and “lower stage surfaces are formed at outer sides of the inner peripheral surface of the rubber elastic body in the widthwise direction.”

The Examiner alleges that Komatsu ‘955 teaches a rubber crawler track assembly including many of the features of claim 1, but does not disclose stepped portions or upper and lower stage surfaces (see Office Action, page 3). The Examiner cites to JP ‘785 as disclosing a crawler track assembly that includes raised portions on an inner surface of either side of a projection 5 which the Examiner alleges forms the upper stage surface having a reduced contact area (Office Action, page 4). The Examiner alleges that a portion 17 of the roller 10 overlies the lower stage surface and a step is disposed between the alleged upper stage and lower stage surfaces (Office Action, page 4). The Examiner points to Figure 4 of JP ‘485 as alleged disclosing that approximately 50% of the outer periphery of the roller contacts the inner surface of the track (Office Action, page 4).

Firstly, JP ‘955 does not disclose or suggest an upper stage surface and a lower stage surface formed at the inner periphery surface of the elastic body. Further, JP ‘955 fails to disclose the resulting advantages of the claimed invention. Instead, JP ‘955 relates to a different technical concept as compared to that of the present invention in that JP ‘955 includes a smaller outer diameter at the end faces of the rollers so that as the rubber belt 2 is pressed against the rollers, there is less possibility of a selvage cut occurring (see Abstract).

JP ‘785 only discloses the alleged stepped portion on the outer side of the roller (see FIGS. 4 and 6). The reason for the alleged lower stage surface in JP ‘785 is to allow the elastic

body to flex away from the tracker body at the inner side thereof and move toward the track body at the outer side which would be advantageous when one side of the tracker assembly travels over higher ground than the other side (see FIG. 4). However, there would no need for the outer side to flex away from the tracker assembly. That is, there would be no reason to modify JP ‘785 to include the alleged lower stage surface at both sides of the tracker roller.

Accordingly, JP ‘785 does not disclose or fairly suggest wherein the contact area on respective left and right sides is in the range of 30 to 70%. Similarly, JP ‘785 does not disclose a lower stage surface formed at the outer sides (plural) of the rubber elastic body, as claimed.

Secondly, the Examiner relies upon the drawings in concluding that the contact area of the outer side of JP ‘785 is in the claimed range, and approximates the contact area at about 50%. However, the Examiner cannot rely upon the drawings for proportions if the drawings are not to scale (see M.P.E.P. § 2125). In other words, the Examiner cannot rely merely upon the drawings to estimate that the claimed ratio is disclosed.

Furthermore, in order for the Examiner to be able to allege that it would have been obvious to have optimized any particular variable, that variable must first be recognized by the prior art as a result-effective variable (see M.P.E.P. § 2144.05(II)). If JP ‘785 fails to disclose any ratio, or any possible advantages of providing or adjusting such a ratio, the JP ‘785 does not recognize the claimed ratio as a result-effective variable, and it is improper for the Examiner to conclude that it would have been obvious to have optimize this ratio.

Thirdly, JP ‘785 discloses a trucker roller structure of a crawler device in which an outer trucker roller is formed with an elastic body and detachably mounted at an outside of an inner trucker roller, to prevent the rubber crawler from bending and coming off when running over surface projections. That is, the goals and results of JP ‘785 differ from those of the claimed

invention, and accordingly, the technical concepts thereof are different from those of the claimed invention.

On the other hand, the claimed invention provides significant advantages that do not result from the arrangement of JP '785. Specifically, the core rubber crawler traveling device has spring elasticity and provides vibration-absorbing effects due to the contact area being restricted within a specified range. As such, the claimed invention provides improved ride quality as compared to that of conventional devices such as JP '785.

Accordingly, claim 1 is patentable over JP '955 and JP '785 because: (1) the combined teachings do not disclose or suggest the lower stage surfaces at both sides of the elastic body or the claimed ratio at both the respective left and right sides; and (2) because the combined teachings do not disclose the claimed ratio and do not recognize the claimed ratio as a result-effective variable.

Accordingly, claim 1 is patentable over the cited references. Claims 2-6, 8, and 19 are patentable at least by virtue of their dependency on claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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CUSTOMER NUMBER

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